CLAIMS

1. A method of using a telecommunications network cashless transaction service comprising the steps of:

(i) a user accesses the service using a telecommunications network access instrument which produces a signal,

(ii) the access instrument signal is forwarded to an interface device of the telecommunications network,

(iii) the interface device extracts service identity and user identity data from the access instrument signal,

(iv) the interface device passes the data to a processing unit for the service of the telecommunications network,

(v) the service processing unit processes the data,

(vi) the service processing unit instructs the interface device to forward the access instrument signal to an input output device of the telecommunications network,

(vii) the service processing unit instructs the input output device to request details of the cashless transaction from the user,

(viii) the transaction details are sent to the input output device,

(ix) the input output device passes the transaction details to the service processing unit,

(x) the service processing unit processes the details and decides whether or not the transaction can proceed,

(xi) the service processing unit causes output of a signal conveying acceptance or rejection of the transaction to the user, and

(xii) if the transaction can proceed, the service processing unit arranges for the transaction to be carried out.

2. A method according to claim 1 in which the telecommunications network comprises one or more fixed networks and/or mobile networks.

3. A method according to claim 1 or claim 2 in which the telecommunications network access instrument signal is forwarded to the interface device via the voice bearer channel of the telecommunications network.

4. A method according to any preceding claim in which the telecommunications network access instrument signal is forwarded to the interface device via one or more data bearer channels of the telecommunications network.

5. A method according to any preceding claim in which the telecommunications network access instrument comprises a telephone.

6. A method according to any preceding claim in which the interface device comprises a service switching point (SSP).

7. A method according to any preceding claim in which the user identity data extracted by the interface device comprises a user identifier assigned to the telecommunications network access instrument.

8. A method according to any preceding claim in which the service processing unit comprises a service control point (SCP).

9. A method according to any preceding claim in which processing of the service identity and user identity data by the service processing unit comprises using the data to identify the cashless transaction service to be used and running service software which causes this service to be carried out.

10. A method according to any preceding claim in which the input output device comprises an interactive/intelligent voice response (IVR) unit.

11. A method according to any preceding claim in which the input output device requests transaction details from the user by sending a signal to the telecommunications network access instrument requesting the details.

12. A method according to claim 11 in which the input output device sends the signal to the access instrument via the voice bearer channel of the telecommunications network.

13. A method according to claim 11 or claim 12 in which the input output device sends the signal to the access instrument via one or more data bearer channels of the telecommunications network.

14. A method according to any preceding claim in which the transaction details are sent to the input output device via the voice bearer channel of the telecommunications network.

15. A method according to any preceding claim in which the transaction details are sent to the input output device via one or more data bearer channels of the telecommunications network.

16. A method according to any preceding claim in which the transaction details comprise vendor identification data such as the name of the vendor or a code associated with the vendor, vendor location data such as a code associated with a branch of the vendor and/or a point of sale (POS) device in the branch at which the transaction is to be carried out, and transaction data such as the amount of the transaction.

17. A method according to any preceding claim in which at least some of the transaction details are held by a POS device, and this is used to send the details to the input output device.

18. A method according to any preceding claim in which at least some of the transaction details are held by the telecommunications network access instrument, and this is used to send the details to the input output device.

19. A method according to claim 18 in which a data input device is used to input the transaction details into the access instrument.

20. A method according to claim 19 in which the data input device comprises an audio coupler which uses an audio signal to input the transaction details into the access instrument.

21. A method according to claim 20 in which the audio coupler comprises a memory and the transaction details, or some of the transaction details, are stored therein.

22. A method according to claim 20 or claim 21 in which the transaction details or some of the transaction details are entered into the audio coupler, which comprises using input means.

23. A method according to claim 22 in which the audio coupler comprises a keypad, or is connected to a stand-alone keypad, which is used to enter at least some of the transaction details into the coupler.

24. A method according to claim 22 in which the audio coupler comprises a POS device, or is connected to a POS device, which is used to enter at least some of the transaction details into the coupler.

25. A method according to any preceding claim in which causing an acceptance signal or rejection signal to be output to the user comprises the service

processing unit instructing the input output device to output an acceptance signal or rejection signal.

26. A method according to claim 25 in which the input output device outputs the acceptance signal or rejection signal via the voice bearer channel of the telecommunications network.

27. A method according to claim 25 or claim 26 in which the input output device outputs the acceptance signal or rejection signal via one or more data bearer channels of the telecommunications network.

28. A method according to any of claims 25 to 27 in which the input output device sends the acceptance signal or rejection signal to the telecommunications network access instrument, for output to the user.

29. A method according to any of claims 25 to 27 in which the input output device sends the acceptance signal or rejection signal to a POS device, for output to the user.

30. A method according to any preceding claim in which causing the acceptance signal or rejection signal to be output to the user comprises the service processing unit instructing the interface device to output the acceptance signal or rejection signal.

31. A method according to claim 30 in which the interface device outputs the acceptance signal or rejection signal via the voice bearer channel of the telecommunications network.

32. A method according to claim 30 or claim 31 in which the interface device outputs the acceptance signal or rejection signal via one or more data bearer channels of the telecommunications network.

33. A method according to any of claims 30 to 32 in which the interface device sends the acceptance signal or rejection signal to a POS device using the telecommunications network access instrument signal, which is disconnected from the input output device and connected to the POS device.

34. A method according to claim 33 in which the acceptance signal comprises a CLI presentation number which comprises the amount of the transaction, and the POS device outputs the CLI presentation number as a visual signal using a display unit of the POS device or connected to the POS device.

35. A method according to any preceding claim in which causing the acceptance signal or rejection signal to be output to the user comprises the service processing unit sending the acceptance signal or rejection signal to a POS device using a telecommunications network link or data link.

36. A method according to claim 33 or claim 35 in which on receiving the acceptance signal, the POS device sends a signal to the service processing unit confirming that the transaction may proceed.

37. A method according to any preceding claim in which, for the transaction to be carried out, the service processing unit sends the transaction details and the service identity and user identity data to a billing service.

38. A method according to any preceding claim in which to use the cashless transaction service, the user is provided with an account, which is debited or credited on carrying out of a transaction using the service.

39. A method according to any of claims 1 to 37 in which the transaction is carried out by debiting an existing account for the user which uses the telecommunications network.

40. A method according to any preceding claim in which the user is required to use a security code for authorisation of a transaction, without which the transaction cannot proceed.

41. A method according to claim 40 in which the security code is sent to the input output device.

42. A method according to claim 41 in which the security code is sent to the input output device via the voice bearer channel of the telecommunications network.

43. A method according to claim 40 or claim 41 in which the security code is sent to the input output device via one or more data bearer channels of the telecommunications network.

44. A telecommunications network providing a cashless transaction service comprising: an interface device, a service processing unit, and an input output device, in which the interface device accepts signals from a telecommunications network access instrument, extracts service identity and user identity data from the access instrument signal, and passes the data to the service processing unit, the service processing unit processes the data, instructs the interface device to forward the access instrument signal to the input output device, and instructs the input output device to request details of the cashless transaction, the input output device receives the transaction details, and passes them to the service processing unit, and the service processing unit processes the details and decides whether or not the transaction can proceed, causes output of a signal conveying acceptance or rejection of the transaction, and, if the transaction can proceed, arranges for the transaction to be carried out.

45. A cashless transaction service adapted to be provided on a telecommunications network comprising: means for extracting service identity and user identity data from a signal from a telecommunications network access instrument, means for

processing the data, means for instructing an interface device of the telecommunications network to forward the access instrument signal to an input output device of the telecommunications network, means for instructing the input output device to request details of the cashless transaction, means for processing the transaction details and deciding whether or not the transaction can proceed, means for causing output of a signal conveying acceptance or rejection of the transaction, and if the transaction can proceed, means for arranging for the transaction to be carried out.

46. A service according to claim 45 which is provided as software held on a service processing unit of the telecommunications network.

47. An audio coupler comprising: an audio generator arranged to generate audio signals that incorporate transaction details, a receiver unit arranged to receive a telecommunications access instrument, the receiver unit also being arranged to input the transactions details into the access instrument, a memory arranged to store at least some of the transaction details therein, and input means arranged to receive at least some of the transaction details into the audio coupler.